National Climatic Data Center

DATA DOCUMENTATION

FOR

DATA SET 1171 (DSI-1171)

National Data Buoy Center (NDBC) DATA USERS REFERENCE

March 20, 2003

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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1. Abstract: The National Data Buoy Center (NDBC) processes data from selected US buoys and Coastal Marine Automated Stations (C-MAN). The data are sent to the National Climatic Data Center (NCDC) monthly in File Type 191 format. The data are stored in DSI-1138 and contain environmental data, subsurface data, wave spectra and directional data. The environmental data are selected from these tapes, used to produce monthly summaries for Mariners Weather Log (MWL), and stored in a separate file for user services.

In 1987, a new File Type 191 was developed by NDBC to record 10-minute scalar average winds. At NCDC, a new archive format was designed to store the data, MWL tables were revised, and inventories and listings of buoy data on microfiche were modified. Buoy and C-MAN station data observed prior to 1980 are stored in DSI-1129. From October 1979 onward, buoy and C-MAN station data from NDBC are stored in a separate file, DSI-1171. Buoy and C-MAN observations received through telecommunications at the National Meteorological Center (NMC) are stored in the main DSI-1129 marine file.

2. Element Names and Definitions: The format for DSI-1171 is shown below. For data prior to October 1979, see the Marine Reference Manual for DSI-1129.

NDBC Data Format Codes

Record Positions	Element	Tape Configuration	Units and Remarks
1 - 3	Source ID	000-999	The Source ID for NDBC is 882. Other sources may be added in the future.
4 - 6	Marsden Square	001-936-999	
7 - 8	Marsden Sub-square	00-99	
9	NCDC Quadrant	1-4	1 = N Latitude and W Longitude 2 = N Latitude and E Longitude 3 = S Latitude and W Longitude 4 = S Latitude and E Longitude
10 -16	Station Identifier		Buoy number or C-MAN station call sign. The numbers are left justified in the field. The last three significant digits of fixed buoy ID's are 500 or less, drifting buoys are greater than 500.
17- 20	Year		19xx-2xxx
21- 22	Month		1-12
23- 24	Day		1-31
25- 26	Hour		00-23 Starting in 1988 this is the acquisition time. Prior to 1988, time is indicated to the whole hour.
27- 28	Minute		00-59 The acquisition time was minute 20 of the indicated hour for West Coast and Gulf of Mexico

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			C-MAN stations, and minute 50 of the previous hour for the remaining stations.
29 - 31	Latitude	000-900	Tenths of degrees
32	Hemisphere	N or S	North or South
33 - 36	Longitude	0000-1800	Tenths of degrees
37	Hemisphere	E or W	East or West
38 - 40	Anemometer Height	000-999	Tenths of meters. This field is station altitude prior to February 1985.
41 - 44	Air Temp	+000-+999	Tenths of degrees C. The first position is the sign.
45 - 48	Dew Point Temp	+000-+999	
49 - 52	Sea Surface Temp	+000-+999	
53 - 57	Sea Level Pressure	08900-10700	Hectopascals (tenths of mb)
58 - 60	SDSI. Wind Dir.	000-360,999	Whole degrees from North
61 - 64	SDSI. Wind Speed	0000-9999	Tenths of knots
65	SDSI. Wind Averaging Method	1 or 2	1 = Vector, 2 = Scalar. C-MAN Station winds are scalar averages. Prior to 1984, buoy winds were vector averages. From 1984 to 1988 the buoy winds were either vector or scalar, but the method is not indicated in the record. Call NDBC (601)688-2836 for further information.
66 - 68	SDSI. Averaging Period	020-085	Tenths of minutes. Averaging period is not given prior to1988. Buoy winds were averaged for 8.5 minutes and C-MAN station winds for 2 minutes prior to 1988. The standard averaging period ends at acquisition time. (See Hour, minute.)
69 - 70	SDSI. Peak Wind Sampling Interval	01-99	Seconds
71- 74	SDSI. Peak Wind	0000-9999	Tenths of knots. The standard peak wind is the highest wind obtained during the standard averaging period.

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75- 77	Significant Wave Height	000-999	Tenths of meters
78 - 80	Dominant Wave Period	000-999	Tenths of seconds
81 - 83	Average Wave Period	000-999	Tenths of seconds
84 - 86	Principal Wave Direction	000-360	Whole degrees from North
87 - 90	Precip since last synoptic report	0000-9999	Millimeters, 6-hour total
91 - 94	Hourly Peak Wind	0000-9999	Tenths of knots. The highest 5 second wind occurring during the observation hour ending at acquisition time. (See Hour, Minute.)
95 - 97	Direction of Peak Wind	000-360	Whole degrees from North
98 - 101	Time of Peak Wind	0000-2359	Hour and minute
102 - 103	Ending time of 10 minute winds	00-23	Hour
104 - 106	Minutes	00-09	Direction and speed are ten minute scalar averages in whole degrees and tenths of knots, respectively.
	Wind Direction	000-360	
107 - 110	Minutes	00-09	
	Wind Speed	0000-9999	
111 - 113	Minutes	10-19	
	Wind Direction	000-360	
114 - 117	Minutes	10-19	
	Wind Speed	0000-9999	
118 - 120	Minutes 20-29		
	Wind Direction	000-360	
121 - 124	Minutes	20-29	
	Wind Speed	0000-9999	
125 - 127	Minutes	30-39	
	Wind Direction	000-360	
128 - 131	Minutes	30-39	
	Wind Speed	0000-9999	
132 - 134	Minutes	40-49	
	Wind Direction	000-360	

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135 - 138	Minutes	40-49
	Wind Speed	0000-9999
139 - 141	Minutes	50-59
	Wind Direction	000-360
142 -145	Minutes	50-59
	Wind Speed	0000-9999
146 - 152	Reserved	

Blank fields indicate missing data

3. Start Date: 19791099

4. Stop Date: Ongoing

5. Coverage:

a. Atlantic Ocean
b. Pacific Ocean
c. North America

6. How to Order Data:

Ask NCDC's Climate services about the cost of obtaining this data set.

Phone: 828-271-4800
FAX: 828-271-4876
E-mail: NCDC.Orders@noaa.gov

7. Archiving Data Center:

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, NC 28801-5001

8. Technical Contact:

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, NC 28801-5001

9. Known Uncorrected Problems: None

10. Quality Statement: None provided with original documentation.

11. Essential Companion Datasets: None. Buoy summaries are produced for Mariners Weather Log. Inventories and data listings are stored on microfiche. Blank or zero-filled fields in the inventories and blank fields in the buoy listings indicate that data were not available

12. References: None provided with original documentation.

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